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CASE REPORT

Multiple skin metastases in forearm from base tongue carcinoma

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Summary Distant metastases in squamous cell carcinoma of head and neck cancer (SCCHN) are most often to the lung, liver and bone. SCCHN rarely metastasizes to skin sites. We encountered a 58-year-old male patient who initially presented with carcinoma of the base of tongue with T3N2bMO disease and was treated by curative radiotherapy. After about one and a half years, he developed multiple skin lesions in the left forearm below the elbow region, which was initially treated for some infective pathology of skin. But due to no response, cytological examination performed which turned out to be metastasis from tongue carcinoma. The present case report describes this rare event along with highlighting some of the important issues which to be considered under such conditions.

Introduction

Like most head and neck cancers, carcinomas of base tongue remain confined to above the clavicles. Besides local spread, neck node metastasis is the usual mode of spread. About 75–80% patients with advanced tongue carcinoma have lymph node metastases at the time of presentation.[1] The incidence of distant metastasis is, though, rare, rises with neck node metastasis. The common sites of metastasis are lung, liver and bone.[2] Skin metastasis (SM) is extremely rare and sometime goes unnoticed because of its rare occurrence. SM usually occurs in the neck, scalp and over the chest wall that is near to primary site (Fig. 1). We report a case of carcinoma base of tongue with multiple skin metastases in the left forearm.

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Figure 1 Multiple skin metastatic lesions in the neck and chest wall in a previously irradiated patient of supraglottic larynx.

Case history

A 58 years old male, chronic smoker, beetle chewer and alcoholic presented to our OPD in November 2002 with chief complaints of pain during swallowing of 6 months duration and bilateral neck swellings of 3 months duration. He was well built but poorly nourished with a Karnofsky Performance Score (KPS) of 80. Examination of the oropharynx by direct laryngoscopy revealed an ulceroproliferative growth involving the right side of posterior one-third of tongue crossing the midline with extension to the right pharyngeal wall and vallecula. There were bilateral, hard, discrete, partially mobile nodes present with normal overlying skin. Biopsy taken from growth showed well-differentiated squamous cell carcinoma. All the baseline investigations including complete hemogram, liver function test, renal function test, X-ray chest, were well within normal limits. In view of the above findings patient was diagnosed as a case of carcinoma base of tongue with T3 N2b MO (AJC 1997) stage IVA. He was treated with external radiotherapy with a dose of 70 Gy in 35 fractions in 7 weeks on Cobalt-60 tele therapy machine using lateral opposing fields to face and neck with concurrent cisplatin based weekly chemotherapy. Patient tolerated chemo-radiotherapy well and was advised to attend head and neck cancer clinic regularly for follow up. He was disease free for about one and a half years, and in May 2004 he reported with the complaint of multiple subcutaneous nodules in the left forearm below the elbow region (Fig. 2). Initially he was given a course of antibiotic

Figure 2 Multiple skin lesions on left forearm below the left elbow. They are firm, nontender and not fixed to underlying structures.

considering some infective pathology of skin, as there was no sign of recurrence at the local or nodal site. Despite the antibiotic treatment his skin nodules kept on increasing in size. Hence fine needle aspiration cytology performed from the nodules, which revealed a metastatic squamous cell carcinoma consistent with primary squamous cell carcinoma of base tongue. As these nodules were not fixed to underlying structures a wide local excision was done in the department of surgical oncology, which further confirmed the diagnosis (Fig. 3). Considering the metastatic nature of the disease, patient was put on cisplatin based palliative chemotherapy. Patient responded well for 2 months and later developed headache and another nodule

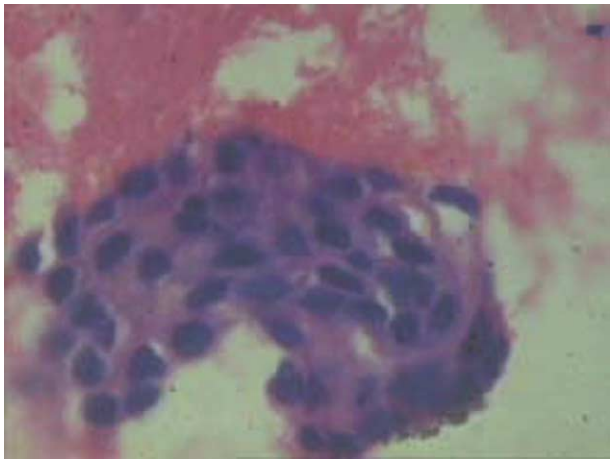

Figure 3 (HE, 1000×). Section shows a group of atypical squamous epithelial cells showing big hyper chromatic nuclei. There is marked pleomorphism.

on left side of nose when he was last seen in August 2004.

Discussion

The frequency of SM from internal malignancies varies from 0.7% to 9% of all cancer patients.[3] The most common sites of distant metastases in Head and neck cancers are usually lung (70—75%), liver (17—38%) and bone (23—44%).[2] SM has been reported to occur in 0.8—1.3% of patients with SCCHN.[4] There are very few reports in the literature about the skin metastasis from head and neck cancer. Available reports suggest that SM is a rare event and most common sites of SM were usually neck, scalp and over the chest wall that is near to primary site.[5,6] Our report highlights the occurrence of SM in the left forearm below the elbow, which is extremely unusual. The exact mechanism of SM in SCCHN is incompletely understood. There are three possible mechanisms as outlined by Kamucha and Troxel,[7] namely direct spread, local spread and distant spread. SM thought to involve hematogenous spread where pulmonary circulation and filtration can be theoretically bypassed via the azygous venous and vertebral venous system via Batson's plexus, allowing skin implantation. Though it is general assumption that SM indicates poor prognosis for the patient, information is lacking regarding the survival and the proper treatment of this group of patients. Berger et al.[8] in their study reported that length of survival was approximately 3 months after skin metastasis become clinically evident in head and neck cancer. The treatment of SM is inconclusive. Being the metastatic nature of disease, the treatment of these patients is, in general, palliative. Options available are surgical excision, chemotherapy, external beam radiotherapy, or combination of these. Surgical excision has been shown to increase survival time,[9] being other forms of treatment are usually ineffective. Whatever the nature of the primary lesion, the course of the disease or the treatment(s) administered, it appears that skin metastasis is an equalizing factor for all patient groups in carcinoma of the head and neck; all patients do poorly and succumb rapidly to their disease.

Conclusion

We report a case of SCCHN, which produced skin metastases in the left forearm below the left elbow, which is extremely rare site. Another issue which needs emphasis is that a patient with SCCHN coming for regular follow up when develops such lesions should be considered with high degree of suspicion and a confirmatory investigation should be performed.

Due paucity of data present in the literature, there are number of question remain unanswered like prognosis of patients once SM appears, the primary lesion associated with SM, the type of therapy to be administered to these patients, the time interval between the appearance of primary lesion and to SM, the relationship of the SM to metastases to other distant sites and the mode of dissemination resulting in the SM. A larger series are required to answer these questions as incidence of SCCHN is increasing nowadays.

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